

In the United States Patent and Trademark Office

Inventor:	Estes et al.)	Examiner: G. Webb
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Serial No.:	10/027,160)	
)	Group Unit: 1751
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Title:	Non Aqueous Washing Apparatus and ...)	
)	
Atty. Docket No.	9793070-0439)	

Response A to First Non-Final Office Action

In response to the Non-Final Office Action dated 25 April 2002, the applicants respond as follows.

A. In the Specification:

Please replace the paragraph beginning on page 11, line 1, with the following rewritten paragraph:

--FIGS. 4-12 and 15 illustrate various methods of washing fabrics in accordance with the present invention. For definitional purposes, a fluid that possesses no deterative properties similar to those properties found in conventional detergents, dry cleaning agents and liquefied carbon dioxide will hereinafter be referred to as an ideal working fluid (IWF). Examples of IWFs that can be utilized with the methods and apparatuses of the present invention include fluoroinerts, hydrofluoroethers, perfluorocarbons and similarly fluorinated hydrocarbons.--

Please replace the paragraph beginning on page 18, spanning lines 19 to 25, with the following paragraph:

-- As noted above, one family of chemicals particularly suited for use as IWFs in the methods and apparatuses of the present invention are "fluoroinert" liquids. Fluoroinert liquids have unusual properties that make them particularly useful as IWFs. Specifically, the liquids are clear, colorless, odorless and non-flammable. Fluoroinerts differ from one another primarily in boiling points and pour points. Boiling points range from about 56°C. to about 253°C. The pour points typically range from about 30°C. to about -115°C.

Please replace the paragraph beginning on page 21, line 4, with the following rewritten paragraph:

--As indicated above in FIGS. 4-12 and 15, tumbling of the fabric, IWF and any additives including performance enhancers and co-solvents in the washing chamber is a suitable method of transferring mass, i.e. soils, from the fabric to the IWF and/or co-solvent. Other methods of mass transfer include rinsing, centrifugation, shaking, wiping, dumping, mixing and wave generation.--

Please replace the paragraph beginning on page 21, line 9, with the following rewritten paragraph:

--Also, as indicated above in FIGS. 4-12 and 15, the application of air is a suitable method of dehydration or drying the fabric. Other methods of drying may employ centrifugation, liquid extraction, the application of a vacuum, the application of forced heated air, the application of pressurized air, simply allowing gravity to draw the IWF away from the fabric and the application of a moisture absorbing material.--

Please replace the paragraph beginning on page 21, line 14, with the following rewritten paragraph:

--As indicated above in FIGS. 4-12 and 15, the IWF and co-solvents may be recovered through the use of gravity separation, filtration and centrifugation. In addition, de-watering, scrubbing, vaporization, phase inversion and the application of an induced electrical field may be used in recovery and purification of the IWF and co-solvents.--